

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**RECEIVED
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In re Application: Skrzyniarz et al.

Group Art Unit: 1771

Serial No.: 09/916,779

Examiner: Victor C. Chang

Filed: July 27, 2001

Atty. Docket No.: 1945.BDM

For: FOAMED ADHESIVE AND USE THEREOF

BRIEF ON APPEALCommissioner for Patents
Alexandria, VA 22313-1450

Sir:

Applicants hereby appeal the decision of the Primary Examiner finally rejecting claims 12-18, 21 and 22, all pending claims. A timely Notice of Appeal was filed on November 17, 2004. A two month extension of time, extending the period for filing this brief until March 17, 2004 is being concurrently filed herewith

This Brief is being filed in triplicate. The fee, as required under 37 C.F.R. § 1.17(c), accompanies the filing of this Brief (fee transmittal form attached).

A copy of the claims involved in this appeal is set forth in Appendix L

I. Real party in interest

The real party in interest, as evidenced by the assignment document recorded July 27, 2001 (Reel 012048, Frame 0282), is National Starch and Chemical Investment Holding Corporation.

II. Related appeals and interferences

There are no other appeals or interferences known to applicants which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of claims

Claims 12-18, 21 and 22 are pending and have been finally rejected. Claims 1-11, 19 and 20 have been canceled.

The rejections of claims 12-18, 21 and 22 are being appealed.

IV. Status of amendments

Applicants' amendment filed November 17, 2003 is not to be entered (see Advisory action, December 11, 2003).

V. Summary of invention

The invention is directed to articles of manufacture comprising a core material and a surface material, wherein the core material is a wood composite and the surface material is a high pressure laminate. In accordance with the invention the wood composite is bonded to the high pressure laminate with a foamed polyvinyl acetate emulsion-based adhesive. Articles of manufacture encompassed by the invention include countertops, architectural panels, flipper doors and the like.

VI. Issues

A. WHETHER THE EXAMINER ERRED IN REJECTING CLAIM 13 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH .

B. WHETHER THE EXAMINER ERRED IN DETERMINING THAT THE SUBJECT MATTER OF CLAIMS 12 AND 18 ARE ANTICIPATED BY MURPHY ET AL. (U.S. PATENT NO. 4,036,673).

C. WHETHER THE EXAMINER ERRED IN DETERMINING THAT THE SUBJECT MATTER OF CLAIM 13-17, 21 AND 22 ARE OBVIOUS OVER MURPHY ET AL. (U.S. PATENT NO. 4,036,673).

D. WHETHER THE EXAMINER'S REJECTIONS OF CLAIMS 12-18, 21 and 22 WERE CONSTRUCTED THROUGH THE IMPERMISSABLE USE OF HINDSIGHT.

VII. Grouping of claims

The patentability of dependent claims 13-18, 21 and 22 are to stand or fall with independent claim 12.

VIII. Argument

A. The examiner erred in determining that claim 13 is indefinite under 35 U.S.C. § 112, second paragraph.

In response to the Office action, paper No. 5, mailed June 13, 2003, which action was made final, applicants amended claims 12, 17 and 21. This amendment merely corrected obvious typographical errors deemed by the examiner to render the claims indefinite. In the Advisory action, mailed December 11, 2003, the proposed amendments were denied entry (paragraph 7 of the Advisory action) notwithstanding the examiner's position that the "proposed amendments to claims 12, 17 and 21 overcome the rejection over 35 U.S.C. 112, second paragraph (see, Advisory action, page 2, note 2).

The claims, as amended in response to the final rejection, are set forth in Appendix II.

While the examiner renewed a rejection of claim 13 as being indefinite in lacking a standard for the recited volume, it is unclear if this rejection formed the basis of the examiner's refusal to enter the amendment.

Applicants submit that claim 13 is not indefinite. Claim 13 requires that the adhesive is foamed, e.g., by the introduction of air, such that the volume of the adhesive following foaming is from about 20% to about 60% by volume.

No "standard" need be recited. If the adhesive is foamed 20 % by volume, then one cubic foot, one cubic yard, one cubic meter would be 1.2 cubic feet, 1.2 cubic yards and 1.2 cubic meters, respectively, of foamed adhesive.

Applicants submit that the examiner erred in the determination that claim 13 is indefinite. Applicants further submit that the amendment placed the claims in better form for appeal and allowance and that the examiner erred in refusing to enter the amendments to claims 12, 17 and 21.

Reversal of the examiner's rejection is requested.

B. The examiner erred in determining that claims 12 and 18 are anticipated by Murphy et al. (U.S. Patent No. 4,036,673).

Claims 12 and 18 stand finally rejected under 35 U.S.C. § 102 as being anticipated by Murphy et al. (U.S. Patent No. 4,036,673).

Murphy discloses use of an adhesive composition comprising water, filler, resinous adhesive, plasticizer and tackifier (see, e.g., col. 6, lines 50-52). Murphy describes a method of for installing a surface covering material on a surface such as a floor surface or a wall surface, using an adhesive that will conform to irregularities common on such surfaces.

While polyvinyl acetate is included in the list of suitable resins, vinyl acrylic copolymers are preferred adhesive agents (col. 2, lines 56-58, col. 6, lines 62-62). Vinyl acetate butyl acrylate copolymer is disclosed as being particularly preferred (col. 3, lines 60-62), and this is the resin used in all exemplified formulations (Examples 1-4). The adhesive is foamed and used to attach a floor surface covering material to a floor. The adhesive is foamed and applied in the foamed state in the field by the installer of the surface material.

Murphy discloses (col. 3, lines 8-14):

The method of the present invention may be used in installing sheet goods such as large widths or tiles of floor covering of vinyl, vinyl-asbestos, vinyl-foamed vinyl-asbestos, cellulose backed vinyl, jute or foam backed carpeting and the like; wall coverings such as fabric-backed polyvinyl halide, polyvinyl halide coated paper, and the like.

There is no disclosure in the Murphy patent that wood composites may be bonded to high pressure laminates using a foamed polyvinyl acetate based adhesive.

Murphy (col. 1, lines 18-26) merely discloses that:

The prior art has suggested many methods for installing a surface covering material on a surface such as a floor surface, wall surface, counter top, ceiling, upholstery substrates or the like.

Murphy goes on to disclose (col. 1, lines 18-23):

Many types of adhesives or adhesive products have been used, but the type of adhesive used depends to a large extent upon the use to which the surface covering will be subjected, as well as the nature of the surface covering material and the surface being covered.

Murphy only teaches adhesives and methods for bonding particular surface covering materials to specific flooring surfaces. Murphy does not teach countertops or any other

article wherein a wood composite material is bonded to a high pressure laminate using a foamed adhesive comprising polyvinyl acetate.

Murphy does not disclose the claimed invention. Reversal of the examiner's Section 102 rejection is requested.

C. The examiner erred in determining that claims 13-17, 21 and 22 are obvious over Murphy et al. (U.S. Patent No. 4,036,673).

Claims 13-17, 21 and 22 stand finally rejected under 35 U.S.C. § 103 as being obvious over Murphy et al. (U.S. Patent No. 4,036,673).

It is well known that in order to establish a *prima facie* case of obviousness; three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference(s) or in the knowledge generally available to one of ordinary skill in the art, for the modification. Second, there must be a reasonable expectation of success. Third, the prior art reference must teach or suggest all the claimed limitations. In addition, the teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicants' disclosure. See, *In re Vaack*, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP 214.

The examiner has failed to meet these requirements. There is no disclosure in Murphy that would lead the skilled artisan to the claimed invention let alone provide any indication that such could be successfully accomplished. Murphy fails to suggest and does not provide any motivation to use foamed adhesive as claimed by applicants to bond a wood composite core material to a high pressure laminate. Murphy's enabling disclosure and claims are directed to applying a surface covering to a floor surface. Murphy fails to provide teachings suggestive of a reasonable expectation of success. Murphy fails to teach or suggest all the claimed limitations.

Applicants urge that the examiner has failed to establish a *prima facie* case of obviousness. Reversal of the examiner's Section 103 rejection is requested.

D. The examiner's rejection of claim 18 was constructed through the impermissible use of hindsight.

Murphy does not suggest or provide any motivation to use a foamed polyvinyl acetate based adhesives, to bond a wood composite to a high pressure laminate. Applicants urge that the examiner has failed to establish a *prima facie* case of obviousness, and using applicants' disclosure has merely selected and combined isolated disclosures of the references.

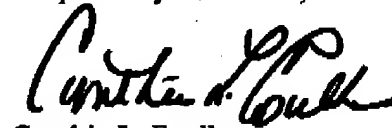
Applicants submit that the examiner's rejection of claims 12-18, 21 and 22 were constructed through the impermissible use of hindsight and that the claimed subject matter is not anticipated by or render obvious by Murphy.

Reversal of the Section 102 and 103 rejections is requested.

Conclusion

Applicants submit that the claim subject matter is patentable over the prior art applied by the examiner. The rejection of record cannot be sustained and the Board is requested to reverse the examiner's rejection.

Respectfully submitted,



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APPENDIX I

Claim 12: An article of manufacture comprising a wood composite and a high pressure laminate, wherein the wood composite is bonded to the high pressure laminate using a foamed adhesive comprising at least one polyvinyl acetate emulsion.

Claim 13: The article of claim 12 where the foamed adhesive is foamed from about 20 to about 60% by volume.

Claim 14: The article of claim 12 wherein the foamed adhesive comprises a blend of at least two polyvinyl acetates.

Claim 15: The article of claim 14 wherein the foamed adhesive further comprises a polysaccharide filler.

Claim 16: The article of claim 15 wherein the polysaccharide is a starch.

Claim 17: The article of 16 wherein the foamed adhesive further comprising an additive selected from the group consisting of a surface active agent, a defoamer, a preservative and a UV indicator.

Claim 18: The article of claim 17 which is a countertop.

Claim 21: The article of claim 14 wherein the foamed adhesive comprise at least one polyvinyl acetate prepared by batch polymerization and at least one polyvinyl acetate prepared by continuous polymerization.

Claim 22: The article of claim 12 wherein the foamed adhesive comprises from about 55 to about 85% of said at least one polyvinyl acetate emulsion and from about 5 to about 20% of a filler.

APPENDIX II

Claims 1-11 (canceled)

Claim 12 (currently amended): An article of manufacture comprising a wood composite and a high pressure laminate, wherein the wood composite is [boned] bonded to the high pressure laminate using a foamed adhesive comprising at least one polyvinyl acetate emulsion.

Claim 13 (previously presented): The article of claim 12 where the foamed adhesive is foamed from about 20 to about 60% by volume.

Claim 14 (previously presented): The article of claim 12 wherein the foamed adhesive comprises a blend of at least two polyvinyl acetates.

Claim 15 (original): The article of claim 14 wherein the foamed adhesive further comprises a polysaccharide filler.

Claim 16 (original): The article of claim 15 wherein the polysaccharide is a starch.

Claim 17 (currently amended): The article of 16 wherein the foamed adhesive further [comprising] comprises an additive selected from the group consisting of a surface active agent, a defoamer, a preservative and a UV indicator.

Claim 18 (original): The article of claim 17 which is a countertop.

Claims 19-20 (canceled)

Claim 21 (currently amended): The article of claim 14 wherein the foamed adhesive [comprise] comprises at least one polyvinyl acetate prepared by batch polymerization and at least one polyvinyl acetate prepared by continuous polymerization.

Claim 22 (previously presented): The article of claim 12 wherein the foamed adhesive comprises from about 55 to about 85% of said at least one polyvinyl acetate emulsion and from about 5 to about 20% of a filler.